

REMARKS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-6, 8 and 9 are pending in the present application. Claim 7 has been canceled and Claims 1-6, 8 and 9 have been amended by the present amendment.

In the outstanding Office Action, Claim 9 was objected to; Claims 1-5, 7 and 8 were rejected under 35 U.S.C. § 102(b) as anticipated by Yukihiko et al; Claims 1, 6 and 7 were rejected under 35 U.S.C. § 102(e) as anticipated by Gamalielsson et al; and Claim 9 was rejected under 35 U.S.C. § 103(a) as unpatentable over Yukihiko et al in view of Gamalielsson et al.

Regarding the objection to Claim 9, Claim 9 has been amended to remove the reference numerals recited therein as shown on the marked-up copies. Accordingly, it is respectfully submitted this objection has been overcome.

Claims 1-5, 7 and 8 stand rejected under 35 U.S.C. § 102(b) as anticipated by Yukihiko et al. This rejection is respectfully traversed.

Claim 1 has been amended to include subject matter similar to that recited in Claim 7, and is directed to an antenna element including first and second antenna units. The first antenna unit is formed so as to extend in one direction, and the second antenna unit extends substantially orthogonal to the extending direction of the first antenna unit and has an electrical length of substantially  $(\lambda/2) \times A$  (A is an integer), and is coupled to the first antenna unit. Further, the first antenna unit and the second antenna unit are attached in consecutive order to a feeding point. Independent Claim 8 includes similar features.

In a non-limiting example, Figure 1 illustrates an antenna element including a first antenna unit 21 formed so as to extend in one direction, and a second antenna unit 22

extending substantially orthogonal to the extending direction of the first antenna unit and coupled to the first antenna unit 21. Further, the first antenna unit 21 and the second antenna unit 22 are attached in consecutive order to a feeding point 12.

Regarding the subject matter recited in Claim 7, the outstanding Office Action states Yukihiko et al teach in Figures 1-5 a first antenna unit 1 and a second antenna unit 2 attached in order to a feeding point 4. However, as shown in Figure 1 of Yukihiko et al, for example, the feeding point 4 is between the first antenna unit 1 and the second antenna unit 2, and thus the first and second antenna units 1, 2 are not attached in consecutive order to the feeding point 4.

Accordingly, it is respectfully submitted that independent Claims 1 and 8 and each of the claims depending therefrom are allowable.

Claims 1, 6 and 7 stand rejected under 35 U.S.C. § 102(e) as anticipated by Gamalielsson et al. This rejection is respectfully traversed.

Similar arguments apply to Gamalielsson et al as that discussed with respect to Yukihiko et al. In more detail, the outstanding Office Action indicates Gamalielsson et al teach in Figures 1-17, a first antenna unit 1 and a second antenna unit 11 attached in order to a feeding point 1c. However, as shown in Figure 2, for example, the first and second antenna units 1, 11 are not attached in consecutive order to the feeding point 1c. Rather, the feeding point 1c is between the first and second antenna units 1, 11.

Accordingly, it is respectfully submitted independent Claim 1 and each of the claims depending therefrom also patentably define over Gamalielsson et al.

Claim 9 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Yukihiko et al in view of Gamalielsson et al. This rejection is respectfully traversed.

Claim 9 depends on Claim 8, which as discussed above is believed to be allowable.

Accordingly, it is respectfully requested this rejection also be withdrawn.

The abstract has also been amended to remove the reference numerals recited therein.

Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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IN THE CLAIMS

--1. (Amended) An antenna element comprising:

a first antenna unit [(21, 23, 24, 25, 26)] formed so as to extend in one direction; and  
a second antenna unit [(22)] extending substantially orthogonal to the extending  
direction of said first antenna unit [(21, 23, 24, 25, 26)], having an electrical length of  
substantially  $(\lambda/2) \times A$  (A is an integer), and coupled to said first antenna unit [(21, 23, 24,  
25, 26)],

wherein said first antenna unit and said second antenna unit are attached in  
consecutive order to a feeding point.

2. (Amended) The antenna element according to claim 1, wherein said first antenna  
unit [(21, 23, 24, 25, 26)] has an electrical length of approximately  $(\lambda/4) + (\lambda/2) \times B$  (B is an  
integer).

3. (Amended) The antenna element according to claim 1, wherein said first antenna  
unit [(21, 23, 24, 25, 26)] includes at least one type of antenna selected from the group  
consisting of a plate antenna [(25, 26b)], a monopole antenna, a helical antenna [(23)], a  
meander line antenna [(21, 26a)] and a zigzag antenna [(24)].

4. (Amended) The antenna element according to claim 1, wherein said second  
antenna unit [(22)] includes a line antenna [(22a, 22c)].

5. (Amended) The antenna element according to claim 4, wherein said line antenna [(22a, 22c)] includes at least one type of antenna selected from the group consisting of a monopole antenna [(22c)] and a helical antenna [(22a)].

6. (Amended) The antenna element according to claim 1, further comprising a substrate [(11)] with a conductive surface,

said first antenna unit [(21, 23, 24, 25, 26)] being provided on the surface of said substrate [(11)] with a dielectric [(31)] therebetween, and

said second antenna unit [(22)] being provided so as to extend from said substrate [(11)].

7. (Canceled).

7 8. (Amended) A portable information terminal comprising:  
a main unit case [(10)]; and  
an antenna element [(20a-20h)] including a first antenna unit [(21, 23, 24, 25, 26)] arranged within said main unit case [(10)], and formed to extend in one direction, and a second antenna unit [(22)] extending substantially orthogonal to the extending direction of said first antenna unit [(21, 23, 24, 25, 26)], and arranged projectable from said main unit case [(10)], having an electrical length of approximately  $(\lambda/2) \times A$  (A is an integer), and coupled to said first antenna unit [(21, 23, 24, 25, 26)],

wherein said first antenna unit and said second antenna unit are attached in consecutive order to a feeding point.

8 9. (Amended) The portable information terminal according to claim 8, wherein said second antenna unit [(22)] comprises a third antenna unit [(22a)] having an electrical length of approximately  $(\lambda/2) \times C$  (C is an integer), and a fourth antenna unit [(22c)] coupled to said

third antenna unit [(22a)], and having an electrical length of approximately  $(\lambda/2) \times D$  (D is an integer),

    said third and said fourth antenna units [(22a, 22c)] projecting from said main unit case [(10)] when said antenna element [(20a-20h)] is pulled out from said main unit case [(10)], and

    said third antenna unit [(20a)] projecting from said main unit case [(10)] and said fourth antenna unit [(20c)] located in said main unit case [(10)] when said antenna element [(20a-20h)] is stored in said main unit case [(10)].--

#### IN THE ABSTRACT

Please amend the Abstract at page 25, lines 2-10 to read as follows:

    A portable telephone [(1a) includes] including a main unit case [(10)] and an antenna element [(20a)]. The antenna element [(20a)] includes a meander line antenna [(21)] as the first antenna unit arranged within the main unit case [(10)] and formed to extend in one direction, and a second antenna unit [(22)] extending substantially orthogonal to the extending direction of the meander line antenna [(21)], and arranged projectable from the main unit case [(10)], having an electrical length of approximately  $(\lambda/2) \times A$  (A is an integer), and coupled to the meander line antenna [(21)].